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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,539	09/18/2000	Rainer Autenrieth	225/49232	4557

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EXAMINER	
WACHTEL, ALEXIS A	
ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/664,539

Applicant(s)

45242

Examiner

Alexis Wachtel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

Response to Amendment

1. Applicant's amendment and accompanying Remarks filed 12-20-2004 have been entered and carefully considered.

The amendment is sufficient to overcome the anticipation and obviousness rejections of claims 1-4. Applicant's arguments are rendered moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the use of multiple heaters as shown in Fig.2 of the instant Application, does not reasonably provide enablement for the use of multiple heaters provided in any type of spatial configuration which claim 1 reads on. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public

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use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by US 6,641,795 B2 to Abe.

Abe teaches a reactor system for reacting a hydrocarbon or hydrocarbon derivative charging material, comprising:

Per claim 1: a catalyst-coated reaction chamber (Fig.7, item 11b) having a reaction chamber inlet (Fig.7, areas immediately in front of heaters 10a and 10b) for accomodating a flow of a reaction educt stream; and an electric heater arrangement (10a, 10b), through which educts for reacting the charging material can be fed at least in a start operating phase of the reactor system; wherein the electrical heater is flat and is disposed on a level within the reaction chamber inlet, said heater arrangement comprises a plurality of physically separated, individual heating elements (10a, 10b) which are disposed at respective reaction chamber inlet openings upstream of said reaction chamber each of said heating elements being formed by a catalyst coated reaction, educt stream permeable material and at least partially covering one of said inlet openings, said heating elements accommodating a discrete point by point injection of heated reaction educt material into the reaction chamber (Col 6, lines 43-50).

Examiner notes that since the heater elements have a honeycomb structure with multiple passages, said passages constitute means for accommodating discrete point by point injection of heated reaction educt material into said reaction chamber.

Per claim 2: the reactor system, as claimed in claim 1, wherein the heater has a plurality of heating elements, which together cover the cross section of the reaction

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chamber inlet, at least partially (Col 7, lines 27-42). Examiner notes that the heater occupies a cross section in the reactor system covering at least the cross section of the reaction inlet

Per claim 3: Wherein the heater has a heating disk which completely covers the inlet cross section of the reaction chamber. Examiner notes that per Fig.1, heater (10) is in the form of a disk. Examiner notes that the heater occupies a cross section in the reactor system covering at least the cross section of the reaction inlet

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: US 6,641,795 B2 to Abe

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,641,795 B2 to Abe.

Abe teaches per claim 4 a reactor system for reacting a hydrocarbon or hydrocarbon derivative charging material, comprising: a catalyst-coated reaction chamber (Fig.1, item 11) having a reaction chamber inlet (15) for feeding a reaction educt stream into said reaction chamber, and an electrical heater that includes means for point-by-point injection of at least one reaction educt, heated in the heater, into the reaction chamber at least one place within the reaction chamber inlet cross section (Col 6, lines 43-50). Examiner notes the heater, when provided in the form of a porous structure provides means for point-by-point injection for the reaction educt(s).

Abe fails to teach that the electric heater is located in front of the reaction chamber inlet. However, it is plainly evident from Fig.1 that the heater (10) simply allows for the passage there through of reaction educt and into the catalyst coated reaction chamber (Fig.1, item 11). Having placed the heater just downstream, in the middle of or just upstream of the inlet is not seen to negatively impact or positively affect the performance of the reactor system. One of ordinary skill would have recognized that the specific placement of the heater in any area upstream of the catalyst-coated reaction chamber (Fig.1, item 11) is a simple matter of design choice. In the alternative, having placed the heater upstream of the reaction chamber inlet would have been obvious to one of ordinary skill at the time the invention was made. One of ordinary skill would have been motivated by the desire to improve accessibility to a damaged heater for the purpose of repair or replacement.

Allowable Subject Matter

8. Claims 5 and 6 are objected to as depending on rejected independent claims. The following is an examiner's statement of reasons for indicating allowable subject matter: The closest prior art to Abe fails to teach a reactor system that comprises a switchable reaction educt feed system with feed means which feed the reaction educt stream in a start operating mode into the reaction chamber only over one part of the inlet cross section and in normal operating into the reaction chamber over the entire inlet cross section. Abe employs the use of a heater (10) which occupies a cross section in the reactor system covering at least the cross section of the reaction inlet. As a result, all reaction educt passing through the reaction inlet will pass through the heater

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(10). Having used a switchable reaction educt feed system whereby a fraction of the total possible educt that can pass through the reaction inlet per unit time would have defeated the purpose of a heater (10) covering the complete cross section of the reaction inlet. In particular, the heater would not be used to its maximum capacity in heating a fraction of the reaction educt and would result in wasted energy being provided by the heater (10).

Conclusion

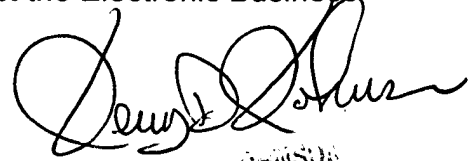
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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